Paper No. 33

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte R. SCOTT GONGWER, CHARLES P. VENEZIA JR., KURT LARSON, and JAMES E. CAREY

Appeal No. 2002-2168
Application No. 08/961,743

ON BRIEF

Before JERRY SMITH, BARRY, and SAADAT, *Administrative Patent Judges*.

BARRY, *Administrative Patent Judge*.

DECISION ON APPEAL

A patent examiner rejected claims 1, 3-5, 7-12, 14-16, 18-23, 25-27, and 29-84. The appellants appeal therefrom under 35 U.S.C. § 134(a). We reverse.

BACKGROUND

The invention at issue on appeal relates to multi-user computing. A large scale computing system (e.g., a database management system) may need to service multiple users concurrently. Different processing models have been used to provide such service. (Spec. at 1.) In particular, a "multi-thread model" uses a single execution of

software, i.e., only one process is spawned. From this one process, multiple threads can be spawned to perform the work necessary to service multiple users. (*Id.* at 2.)

The invention manages session contexts for a computer program concurrently executable by a plurality of sessions. More specifically, a multi-session computing program comprises a plurality of linked modules, each module programmed with a subset of the program. (*Id.* at 3.) Data segments are generated for and accessed by the program to storing session data. A database structure relates each session with at least one segment to provide each session access to data stored therein. The structure includes an array of pointers to bind the modules with the segments. A database manager module associates the structure with the data, the modules, and the segments. (*Id.*)

Each session can include a plurality of transactions. A thread manager is included to assign pre-instantiated threads from a free-thread pool to sessions. The appellants assert that their invention "allows many threadable, session contexts to share a lesser number of real operating system threads, maintained as a thread pool within [a] server process." (*Id.*)

A further understanding of the invention can be achieved by reading the following claim.

> 1. In a multi-session computing system, a system for managing a session context for a session comprising:
>
> a computer program concurrently executable by a plurality of sessions, the computer program comprising a plurality of modules;
>
> a plurality of data segments accessible to the computer program for storing session data;
>
> a database structure relating each session with at least one data segment to provide each session access to the stored session data; and
>
> a thread manager assigning computing threads to sessions.

Claims 18, 40-42, 49, 54, 60, 65, 71, and 76 stand rejected under 35 U.S.C. § 112, ¶ 2, as indefinite. Claims 1, 3-5, 7, 12, 14-16, 18, 23, 25-27, 29, 40-54, 60-65, 71-76, and 82-84 stand rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,452,459 ("Drury"). Claims 8-11, 19-22, 30-39, 55-59, 66-70, and 77-81 stand rejected under § 103(a) as obvious over Drury and U.S. Patent No. 5,345,588 ("Greenwood").

OPINION

Our opinion addresses the rejections in the following order:

- indefiniteness rejection of claims 18, 40-42, 49, 54, 60, 65, 71, and 76

- obviousness rejections of claims 1, 3-5, 7-12, 14-16, 18-23, 25-27, and 29-84.

Indefiniteness Rejection of Claims 18, 40-42, 49, 54, 60, 65, 71, and 76

Rather than reiterate the positions of the examiner or the appellants *in toto*, we address the two points of contention therebetween. First, the examiner asserts, "[c]laims 18, 49, 60, and 71, recite the claim limitation 'free-thread pool' which is not clearly defined in the Appellants' (Applicants') Specification. . . ." (Examiner's Answer at 4.) The appellants argue, "the free thread pool is a waiting area for threads that are ready for use, but have not been assigned to execute any particular task (launched and allocated resources)." (Appeal Br. at 20.)

"The test for definiteness is whether one skilled in the art would understand the bounds of the claim when read in light of the specification. *Orthokinetics Inc., v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576, 1 USPQ2d 1081, 1088 (Fed. Cir. 1986). If the claims read in light of the specification reasonably apprise those skilled in the art of the scope of the invention, Section 112 demands no more. *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1385, 231 USPQ 81, 94 (Fed. Cir. 1986)." *Miles Labs., Inc. v. Shandon Inc.*, 997 F.2d 870, 875, 27 USPQ2d 1123, 1126 (Fed. Cir. 1993).

Here, the specification discloses that the appellants' "context management system allows many threadable, session contexts to share a lesser number of real operating system threads, maintained as a thread pool within the server process." (Spec. at 3.) "In particular, clients 8A, 8B, 8C interact with the server 1 using a free-pool, threaded communications mechanism. . . ." (*Id.* at 14.) According to the mechanism, "software items 28 listen for client transactions and hand over a client identifier to any of thead in their thread-pool." (*Id.*) When such a transaction ends, its associated "thread is then returned to the thread-pool by the communication mechanism." (*Id.* at 15.) In light of this disclosure, we conclude that one skilled in the art would understand that a free-thread pool is a waiting area for threads that are available for use.

Second, the examiner asserts, "[c]laims 40-42, 54, 65, and 76 recite the claim limitation 'pre-instantiated' in combination with the claim limitation 'free-thread pool' which is not clearly defined in the Appellants' (Applicants') Specification. . . ." (Examiner's Answer at 4.) The appellants argue, "[a] pre-instantiated thread is a pre-allocated or concrete instance of a thread." (Appeal Br. at 20.)

"The general rule is, of course, that terms in the claim are to be given their ordinary and accustomed meaning." *Johnson Worldwide Assocs., Inc. v. Zebco Corp.*,

175 F.3d 985, 989, 50 USPQ2d 1607, 1610 (Fed. Cir. 1999) (citing *Renishaw PLC v. Marposs Societa Per Azioni*, 158 F.3d 1243, 1249, 48 USPQ2d 1117, 1121 (Fed. Cir. 1998); *York Prods., Inc. v. Central Tractor Farm & Family Ctr.*, 99 F.3d 1568, 1572, 40 USPQ2d 1619, 1622 (Fed. Cir. 1996)). "It is well settled that dictionaries provide evidence of a claim term's 'ordinary meaning.'" *Inverness Med. Switz. GmbH v. Warner Lambert Co.*, 309 F.3d 1365, 1369, 64 USPQ2d 1926, 1930 (Fed. Cir. 2002) (citing *Texas Digital Sys. Inc. v. Telegenix Inc.*, 308 F.3d 1193, 1202, 64 USPQ2d 1812, 1818 (Fed. Cir. 2002); *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366, 62 USPQ2d 1658, 1662 (Fed. Cir. 2002)).

Here, claims 40-42 specify in pertinent part the following limitations: "the computing threads are pre-instantiated." Similarly, claims 54, 65, and 76 specify in pertinent part the following limitations: "the computing threads are pre-instantiated in the free thread pool." The term "instantiate" is defined as "[t]o make an instance of. . . ." *IBM Dictionary of Computing* 345 (1994) (copy attached). Giving the term its ordinary and accustomed meaning, we conclude that one skilled in the art would understand that a pre-instantiated thread is thread created to be available for later use. Therefore, we reverse the indefiniteness rejection of claims 18, 40-42, 49, 54, 60, 65, 71, and 76.

Obviousness Rejection of Claims 1, 3-5, 7-12, 14-16, 18-23, 25-27, and 29-84

The examiner alleges, "Drury teaches a 'thread manager' in col. 6, lines 8-29." (Examiner's Answer at 12.) The appellants argue that the reference's "transaction manager is not a thread manager because it has nothing to do with creating, assigning, or destroying threads." (Appeal Br. at 12.) The examiner responds, "Appellants' claim language does not disclose or suggest 'the thread manager creates, assigns, or destroys threads.'" (Examiner's Answer at 12.)

"Analysis begins with a key legal question -- *what* is the invention *claimed*?" *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1567, 1 USPQ2d 1593, 1597 (Fed. Cir. 1987). "'[T]he main purpose of the examination, to which every application is subjected, is to try to make sure that what each claim defines is patentable. *[T]he name of the game is the claim*. . . .'" *In re Hiniker Co.*, 150 F.3d 1362, 1369, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998) (quoting Giles S. Rich, *The Extent of the Protection and Interpretation of Claims --American Perspectives*, 21 Int'l Rev. Indus. Prop. & Copyright L. 497, 499, 501 (1990)).

Here, independent claim 1 specifies in pertinent part the following limitations: "a thread manager assigning computing threads to sessions." Claims 12, 23, 49, 60, 71,

and 84, the other independent claims, specify similar limitations. Accordingly, the independent claims require a manager that assigns computing threads to sessions.

Having determined what subject matter is being claimed, the next inquiry is whether the subject matter would have been obvious. "In rejecting claims under 35 U.S.C. Section 103, the examiner bears the initial burden of presenting a *prima facie* case of obviousness." *In re Rijckaert*, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993) (citing *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992)). "'A *prima facie* case of obviousness is established when the teachings from the prior art itself would . . . have suggested the claimed subject matter to a person of ordinary skill in the art.'" *In re Bell*, 991 F.2d 781, 783, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993) (quoting *In re Rinehart*, 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA 1976)).

Here, although the passage of Drury cited by the examiner teaches a manager, we are unpersuaded that the manager assigns computing threads to sessions. To the contrary, we agree with the appellants that the cited passage "merely describes a transaction manager." (Appeal Br. at 12.) More specifically, the reference's "scheduler coordinates with the 'transaction manager' to otherwise prevent the reallocation of the same binding handle until [an] executing transaction is completed." Col. 6, ll. 16-19.

"Furthermore, the client need not invoke a binding release service because the scheduler has coordinated with the transaction manager. Via their pre-established agreement, the transaction manager notifies the scheduler that the transaction is over so the server may be released." *Id.* at ll. 23-28.

The examiner fails to allege, let alone show, that the addition of Greenwood cures the aforementioned deficiency of Drury. Absent a teaching or suggestion of a manager that assigns computing threads to sessions, we are unpersuaded of a *prima facie* case of obviousness. Therefore, we reverse the obviousness rejections of claim 1 and claims 3-5, 7-11, 34, 35, 40, 43, 46, 82, and 83, which depend therefrom; of claim 12 and claims 14-16, 18-22, 36, 37, 41, 44, 47 which depend therefrom; of claim 23 and claims 25-27, 29-33, 38, 39, 42, 45, 48 which depend therefrom; of claim 49 and claims 50-59, which depend therefrom; of claim 60 and claims 61-70, which depend therefrom; of claim 71 and claims 72-81, which depend therefrom; and of claim 84.

CONCLUSION

In summary, the rejection of claims 18, 40-42, 49, 54, 60, 65, 71, and 76 under § 112 ¶ 2, is reversed. The rejections of claims 1, 3-5, 7-12, 14-16, 18-23, 25-27, and 29-84 under § 103(a) are also reversed.

REVERSED

JERRY SMITH Administrative Patent Judge	)))))) BOARD OF PATENT) APPEALS) AND) INTERFERENCES))))
LANCE LEONARD BARRY Administrative Patent Judge	
MAHSHID D. SAADAT Administrative Patent Judge	

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